

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025352**Date Inspected:** 21-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Pat Swain**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Orthotropic Bridge Girder (OBG) Sections:

11W/12W – E: This QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) using the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position on the inside of this OBG section. The welding was adjacent to the “D” and “F” welds where access using the Flux Cored Arc Welding (FCAW) process on the Bug-O track was not available. This QA Inspector randomly observed QC Inspector Tony Sherwood monitoring the work being performed. This QA Inspector randomly observed as QC Inspector Tony Sherwood verified the following welding parameters; 138 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector verified the preheat being greater than 150°F using an electronic temperature gauge. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1110A Rev-1. This QA Inspector periodically observed QC Inspector Tony Sherwood monitoring the work at this location.

11W/12W – C1: This QA Inspector randomly observed ABF welding personnel Jorge Lopez (#6149) using the SMAW process in the vertical (3G) position on the inside of this OBG section. The welding was adjacent to the “D” and “F” welds where access using the Flux Cored Arc Welding (FCAW) process on the Bug-O track was not

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available. This QA Inspector randomly observed QC Inspector Tony Sherwood monitoring the work being performed. This QA Inspector verified the following welding parameters; 140 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector verified the preheat being greater than 150°F using an electronic temperature gauge. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1110A Rev-1. This QA Inspector periodically observed QC Inspector Tony Sherwood monitoring the work at this location. Welding at this location was not completed this date.

10W/11W-E: This QA Inspector randomly observed ABF welding personnel James Zhen (#6001) using the FCAW process in the overhead (4G) position on the outside (back gouged side) of this OBG section. This QA Inspector randomly observed QC Inspector Pat Swain monitoring the work being performed. QC Inspector Pat Swain informed this QA Inspector of the following welding parameters; 219 amperes and 24.5 volts at a travel speed of 225 mm per minute to produce a heat input value of 1.43 Kj per mm. The welding observed appeared to comply with ABF-WPS-D15-3042A-1. This QA Inspector periodically observed QC Inspector Pat Swain monitoring the work at this location.

This QA Inspector, Lead QA Inspector Bill Levell and ABF Engineer John Callaghan had a conversation regarding the scope of work at the 13 meter elevation regarding the diaphragm plates, the Electro Slag Welding (ESW) of the Shear Plates and the Ultrasonic Testing (UT) of the ESW welds at the 13 meter elevation. ABF Engineer John Callaghan stated he was aware the shear plates, which included the ESW joints would be beveled at the 13 meter elevation and that he was aware of UT inspection requirements.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
